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[See Facing Page 536]

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THE Southern Practitioner

AN INDEPENDENT MONTHLY JOURNAL

DEVOTED TO MEDICINE AND SURGERY.

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DEERING J. ROBERTS, M.D.,

Editor and Proprietor, 208 N. Sixth Ave., Nashville, Tenn.

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An Interesting Document

In the History of the Digestive Ferments in Pharmacy

IT was solely upon the strength of these claims of actual digestive properties that we placed these products before the profession, assuming that if we could only be permitted to demonstrate their truth, that their adoption and employment was certain to follow. Scepticism has been the greatest obstacle to contend against, a state of affairs due to the utter worthlessness of the "pancreatines" of the market and the disrepute of the saccharated pepsins and compounds.

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To assume that they may have some peculiar occult remedial value is an empiricism, is a superstition which opposes a barrier to all progress in practical medicine, and denies encouragement to the production of remedial agents upon a scientific basis.

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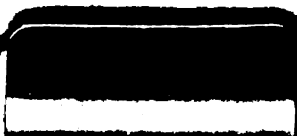
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EDITOR AND PROPRIETOR

VOL. XXX

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NO. 11

Original Communications.

MELANCHOLIA.*

BY HAZEL PADGETT, M. D., OF NASHVILLE, TENN.

All types of melancholia considered, the disease is possibly the most frequent of all forms of insanity, and is that form of mental disease or condition manifested by more or less depression with slowness of intellection, retained consciousness, and the development of secondary delusive ideas of a self-accusatory type, with now and then a great agitation and a pronounced tendency to suicide and sometimes homicide. While pure melancholia is an affection of advanced life I can not agree with Kraepelin in classing it solely as a senile affection. It does occur in youth and early

*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, Sept. 29, 1908.

adult life, and these patients recovering leave no trace of the disease behind. It is not necessary to have an inherited tendency, though an unstable nervous system, harassed by the many ups and downs in this our hurly-burly life we are living, certainly is a predisposing cause. Sudden emotions, such as shock, grief, chagrin, long-continued depressing conditions, especially in persons of poor nutrition, overwork, and under the influence of various toxins, are well recognized causes and agents. I remember a recent case in a young healthy woman, precipitated by a grippal infection. The changes in the brain coincident with old age, seem specially to favor the development of the disease, and this is one reason why some consider it a degenerative insanity. It is claimed by some that it is more common among women than men, but this is not my personal experience, and one would naturally think it more common among civilized and cultivated people, and with the increase in responsibilities and anxieties of life. Some consider profound home sickness a type of melancholia.

It is interesting to note that melancholia is not strictly confined to man, but some of the lower animals have been known to have attacks. The disease is interesting in that it has no known morbid change. No gross or histologic change that is characteristic, though in senile cases and other cases also we do find arteriosclerosis sometime. The best explanation we have is that it is a nutritional disturbance of the cerebral cell, the nerve cell being acted upon by the many possible influences, as anæmia, congestion and toxins resulting in abnormal metabolism. The exact mechanism of the possible change is not known, but in prolonged cases of chronic melancholia we do meet with changes seen in terminal insanities of other kinds, changes like pial and arachnoid thickenings and opacities, vascular degeneration, and brain atrophy.

Under ordinary conditions melancholia is of slow onset, but cases have been known to develop suddenly. There is a multiplicity of prodromal symptoms and conditions, such as a history of great nervous strain and mental anxiety in responsibilities and failing health, with or without poor appetite and digestion. An almost constant state of insomnia before and after the melancholic state is established and insomnia is one of the most distressing states of

the disease, and when the patient sleeps 'tis often not refreshing, but short and disturbed. The patient is constantly worried and distressed about his business and home affairs. At this stage there are attacks of intense depression, and the patient often realizes the unreasonableness of his fears and worries, but it is impossible for him to get out of the atmosphere of his morbid feelings. A very common manifestation of these spells is a feeling of guilt or wrong-doing, and this phase later on becomes very prominent and distressing, especially to those who have to listen to the oft-repeated statements of moral guilt, unworthiness and sin. These spells of depression grow closer and closer together and more profound till the disease is thoroughly established. The intellect through much of the prodromal time, seems often clear, and the person may seek treatment for his condition, and if it is a second attack, fully realizes what is coming, but cannot prevent it. At this stage physical symptoms and conditions exist. Constipation is a most constant condition, often to a marked degree, and going with this is an ever-present occipital or suboccipital headache. The appetite fails with or without gastric irritability, and the patient will not eat, or does so with great reluctance, and has to be made to eat either by insistence or force. Early evidence of physical weakness and prostration are marked, and is easily tired upon the least exertion.

The general symptoms of the prodrome may not be recognized till the patient commits suicide or homicide. The tendency to suicide is an ever-present danger, and it does not always happen when the patient is at his worst, but often when he seems to be improving, and not considered dangerous to himself.

After the incipient stage of melancholia has passed and the disease becomes fixed the symptoms change. The condition now is one of a fixed, intense depression with a decided delusive tendency. In this stage of intense, fixed depression I have seen patients smile and appreciate the comic and then immediately lapse into that awful darkness again. His judgment now has given away. His whole mind is concentrated on his mental distress. When the patient first began he had that vague feeling of having done something wrong that now blossoms into a firm belief that haunts him day and night, as some unpardonable sin and un-

worthiness. Every thing is wrong with him. He is being punished for his sins, and that punishment will continue eternally. Now is one of the most dangerous times, in that he has thoughts of suicide. Often there is a certain amount of motor agitation, the patient walking the floor, wringing the hands, with the feelings of utmost despair; and just recently one of my patients become so violently agitated that he grew dangerous and had to be tied for a short time. Hallucinations do or rather can occur, but not until the pronounced or advanced stages, and are not characteristic of the disease.

There is a variety of melancholia in which the patient is so completely overcome by the depression and painful mental condition that he loses all physical activity and expression. This is called melancholia with stupor. There is no special change in the skin, except that it is quite often dry and very muddy or sallow. The circulation is generally poor and the temperature may be sub-normal.

I have spoken of the ever-present danger of suicide, and this does not always come when the patient is at his worst, but often when he seems to be better; and this is likely to put the physician off his guard. There is no form of the disease that is free from this danger. I have also spoken of homicide, which may show up quite unexpectedly. The course of melancholia is slow and of long duration, but we do have cases that are very mild and run a short course. One cannot hope for much improvement in less than three-months, and then the patient often has oscillations and remissions before convalescence sets in and then the patient improves both mentally and physically, just a little at a time in one little thing and another. He begins to show a little more interest in things generally; asks a few more questions and pays more attention to what is going on around him. Sleeps better, appetite improves, delusions gradually disappear until the individual becomes normal again; but when melancholia does not get well there are several possible terminations. Death may come by suicide. The wear and tear of the system in agitated melancholia may directly overcome the patient's vitality, and the general defective nutrition, plus probably the action of toxins, and the patient may

pass into the chronic form of the disease. The family and friends are always anxious about the result.

Melancholia is one of the specially curable forms of insanity, and if every form of the disease is considered, is the most curable. It is generally estimated of those cases that find the way to the asylums that 50 per cent. recover. Kraepelin, as I have stated, who recognizes it only as a degenerative affection, reckons his recoveries at about 32 per cent. The prognosis is better under 50 years of age than over that age.

The diagnosis of melancholia usually does not offer much difficulty, but there are several states or conditions that can be confused with it, such as the depressed state of general paresis, senile dementia and the depressed state of manic depressive insanity. Melancholia may last for an indefinite period and then get well rather unexpectedly.

The treatment is of vital importance, and the earlier the condition is recognized, the better. The treatment varies with the stages, the character of the attack, and the patient's financial condition. In the mild form the patient often does well with home treatment, but I personally always advocate getting these patients away from home, in order to give them new things to look at, new things to hear, and away from the wear and tear of a hum-drum life. Travel is, as a rule, beneficial when the patient can afford it, physically and financially.

I may mention that some cases of melancholia are so mild that they can care for themselves, but when the disease becomes well established, outside aid is essential. An excellent plan is a stay in a sanitarium, but I never like to send a primary and a supposed curable case to an insane asylum. The important primary things to do are to feed the patient well, overcome constipation, and give all the sleep you can. During the day, it is always well for a short period anyway, for the patient to rest in bed, and if the patient is very weak constant rest in bed is necessary and best. If the patients refuse food, and you cannot, by firm insistence, make them eat, resort to the tube and forced feeding is necessary, and this is a good time to incorporate medicine with the food.

Melancholiacs bear opium well as a rule, and I never hesitate to give opium as morphine or codeine, and it is interesting to

note that it does not always constipate, but often the bowels become more regular under its use.

I have personally found hyoscine, combined with plain morphia, given hypodermically, of the greatest service in the insomnia. Sulphonal, trional and veronal often give good results. Whatever drugs are used should be under the direct control of the physician. When the patient gets better tonics of various kinds can be given. Uncured cases of long duration, and incurable ones, usually indicate an institutional life.

THE DEEP COMPLICATIONS OF GONORRHOEA.*

BY J. W. HANDLY, M.D., OF NASHVILLE, TENN.

There is probably no disease in the category of medicine that has for so many years tested the patience and skill of the surgeon and physician and has been fraught with so many lasting complications as gonorrhœa. To treat a case in its early stages before deeper involvements have manifested themselves is not so difficult, and with our present means of treatment, we are able to limit the duration of the disease. Numerous have been the suggestions for treatment, and yet no specific has been found. The severer kinds of astringents and irrigations have been practically abandoned for the more modern silver salts, which seem to hold sway at present, with becoming benefits, to our suffering patients.

Before going into cursory remarks on the deep complications, I would like to urge the profession at large to give the argyrol treatment a most careful consideration. Used in a 10 to 15 per cent. solution at frequent intervals will modify the pain, lessen the discharge and more rapidly destroy the gonococci than any other remedy at our disposal, without in any way injuring the mucous membrane of the urethra, or causing the later development of the more common complications, which older remedies have produced, such as orchitis, stricture, chronic granulations, and urethral ulcers, or even the passage of the disease to the deeper glandular

*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, October 13, 1908.

structures of the urethra, as has been observed in many instances. The secret of the success with argyrol is the method of using it. In the first place, the urethra should be clear of the mucous secretions, either by having the patient pass his water, or using mild sterile irrigation of the anterior urethra. Next, the medicine should be carefully injected and held for five minutes, the urethra being gently rubbed to allow the solution to reach all parts of it. It should then be allowed to slowly pass out, the penis placed in a protecting bag, retaining as much of the medicine as possible, and as long as possible. If used every three hours, good results will immediately follow.

The first complication to be met is the extension of the disease to the posterior urethra. There it meets with pockets, sinuses and ducts to invade, and it usually invades them all to a greater or less degree. Should the inflammation confine itself to the mucous membrane alone, the symptoms disappear as readily as in the anterior urethra. But, should the deeper structures become infected, convalescence is more tardy. The severity of any case depends upon individual resistance—as does the rapidity of cure. We occasionally meet urethras, to which even the argyrol is irritating. The presence of any form of anterior injection, seemingly aggravating the deeper involvements. This is, however, not often the case.

For the relief of these acute superficial inflammations, I rely largely upon the deep injections of argyrol with a Keyes-Ultzman syringe, aided by the patient taking large quantities of mild lithia water, and the essential oils; later alternating the deep irrigation with hand irrigation with the mild zinc salts, the iodide and chloride, the strengths varying from gr. 1-2 to gr. 1 to the ounce.

When the disease has passed into the glandular structure of the prostate, or when a mild prostatitis has been aroused, after the acute symptoms subside, gentle massage to the prostate, per rectum, at daily intervals, will express the purulent contents from these glands and reduce the amount of pus, which will be indicated by the degree of turbidity of the urine. Daily inspections of the urine, in a test tube, should be made, after anterior washings. This will guide you in your line of treatment.

Occasionally, I find that in subacute cases nitrate of silver plays an important role in bringing about a cure. The strength of this remedy should be 1-4 to 1-2 grain to the ounce, and should not be used oftener than every second day.

Again, in chronic posterior urethritis of the superficial type there is no remedy that so satisfactorily meets the indications as nitrate of silver, by deep irrigation in strengths varying from 1-500 to 1-5000; but in many cases the disease inevitably passes into the deeper structures, inciting a prostatitis, acute or chronic, which, by reason of seats or foci of infection, tend to be long-lasting. Reinfection frequently occurs at times, again lighting up the entire urethral inflammation. These reinfections readily yield to treatment, leaving the morning drop or the "floaters" in the urine, much to the disgust of doctor and patient. Dilatation of the prostatic urethra, urinary antiseptics, massage of the prostate carefully administered, and general reconstructives will in time bring about a cure. I have little faith in the protargol, argyrol or other mild silver salts in chronic urethritis.

Spermato-cystitis, or seminal vesiculitis, as you may be pleased to term it, seems to be the most persistent of complications. The acute form is treated on the expectant plan, relying largely upon hot enemata, salines and the essential oils, sandalwood, cubeb, etc., for their soothing effect on the inflamed urethra. All local measures should cease until the acute symptoms subside. For the chronic form, Fuller and others adhere to "stripping," or "milk-ing" the vesicles at intervals of two to three days—together with general treatment. Lately, for the most persistent forms drainage of the vesicles is done, but the operation is so extensive that few cases will submit to it. This operation is performed along the lines of the Kraske operation, necessitating extensive dissection before the vesicles are reached. A number of cases are reported where gonorrhœal rheumatism has been cured by drainage of the seminal vesicles. Any operation for complete drainage is a serious one and necessitates confinement to bed for several weeks.

Cystitis following gonorrhœa is now known to be comparatively rare, although for many years confounded with posterior urethritis. We were inclined to call every deep inflammation of

the urethra, cystitis, and use vesical irrigation and urinary antiseptics, when no cystitis existed. Microscopic examination in true cystitis shows abundant epithelial cells, excess of mucus and pus, together with thickening of the vesicle walls, hypogastric tenderness, deep-seated pain and imperfect efforts at urination. The epithelial structures of the bladder, the transitional epithelium preclude the idea of ready infection. There must be a break in the mucous membrane or a prolonged irritation at the trigone to induce a general cystitis. While it is rare, yet we do have it and it is often extended to the ureters and pelves of the kidneys by continuity of tissue, dire results following. Surgical intervention is not indicated in either cystitis, ureteritis, or pyelitis, especially in the acute forms; but the rest treatment, urinary antiseptics, as sodii salicylate, salol, uratropin, abundant drinking of waters to produce diuresis, are especially indicated. Surgical means are indicated when a surgical kidney or ureters manifest themselves, or the bladder loses its tonicity, becomes thickened and contracted and shows no signs of any amelioration of symptoms. Perineal drainage has been done for many years in these cases with most satisfactory results.

I will only refer to stricture as a common complication of gonorrhœa, and suggest that no cure can be affected until this has been overcome.

Chronic granulation and ulcers of the urethra are common occurrences in chronic gonorrhœa, calling into requisition the endoscope and prostatescope for diagnosis and topical application for cure. The stronger solutions of nitrate of silver are used, 15 to 30 gr. to the ounce, and applied through the endoscope with a swab, after a careful visual examination.

I would feel that this paper would be incomplete did I not pay my respects to the vaccine treatment. Investigators are still working to perfect this system of treatment, which as yet is only applicable to chronic cases. I must confess that little success has resulted to the cases I have used it on; certainly my results do not in any way compare with the statements of others. It is possible, however, that in the near future, a culture will be produced that will meet the requirements, in those deep-seated complications, where local or surgical measures can not be carried out. It would

be ideal in those inflammations produced by metastasis, or deep extension. Gonorrhœal rheumatism is especially looking for some better remedial agent than those used at present. And, too, what can we do now to relieve an epididymitis? Practically nothing. We wait for nature to cure our cases, and attribute results to topical applications. How very unsatisfactory is such treatment. I have used the vaccine therapy in long-standing cases of orchitis with apparently good results, though at times it seemed very doubtful.

To sum up our researches, old and new, we can safely say we have no specifics for gonorrhœa.

THE LOCAL TREATMENT OF CATARRHAL CONDITIONS AFFECTING THE UPPER AIR PASSAGES.

BY E. C. ROEMELE, M.D., FRANKFORT, KY.

Case 1. —E. J., æt. 24. Diagnosis: Chronic Nasal Catarrh. Duration, three years. Patient complained of a feeling of fullness in the nares and increase of the secretions, the character being thick and greenish, which dropped posteriorly into the pharynx, causing paroxysms of "hawking," which were more marked in the morning just after arising. The voice had a peculiar nasal intonation, the sense of smell was abolished almost entirely and hearing was impaired, due to the extension of the inflammation into the eustachian tubes. The patient also complained of a constant dull headache. I at once prescribed Glyco-Thymoline and had him use the K. & O. Nasal Douche every four hours, using the Glyco-Thymoline in 25 per cent. solution. I directed him to spray his throat with an atomizer, using undiluted Glyco-Thymoline every four hours, and also gave him one teaspoonful of Glyco-Thymoline four times a day internally. This was done on account of the catarrhal condition of his stomach. After two weeks the hawking had ceased, his voice took on a more natural tone, and hearing and smelling senses were improved. He continued to improve when after fifteen weeks he was entirely cured. There has been no return during the past ten months.

Case 2.—Willie Green, æt. 7. Diagnosis: Hypertrophy of tonsils. This case was referred to me by Dr. D., to have his tonsils removed. The doctor stated that he had used every known remedy to reduce them, his last resort being iodine, which he applied in undiluted form, also giving him internal treatment. When I examined his throat I found the tonsils extremely large, so large, in fact, that the opening was not as large as a slate pencil. He was a terrible mouth-breather, and could easily be heard from one room to another. He would not consent to the operation, and his mother would not permit us to administer chloroform. I then decided to attempt to cure them without the operation. I prescribed a pound bottle of Glyco-Thymoline and directed the mother to spray his throat thoroughly every three hours with an atomizer. She called in again in one week and the swelling had subsided, and the child ceased to breathe as hard as he had breathed. This same treatment was continued. He was returned to my office in three weeks when the tonsils were normal in size; he kept his mouth closed when he slept. The treatment was continued several weeks longer when he was discharged as cured. It has now been eight months and no return whatever of any symptoms of the disease.

Case 3.—Ella N., æt. 27. Diagnosis: Rhino-pharyngitis. Duration, six years, presenting characteristic symptoms of severe type. Patient had to vomit after each meal on account of hawking the mucus out, which she said would drop into her throat. When she would arise in the morning she would have to hawk and cough half an hour before she would be relieved of the mucus which she said came out of her throat in the shape of round balls. I directed her to use the K. & O. Douche, filling it with Glyco-Thymoline pure, flushing out the nasal cavities three times a day and directed her to spray her throat with Glyco-Thymoline, one part to one of water, three times a day. Improvement was immediate. After five weeks, instead of using the Glyco-Thymoline in the douche in undiluted form, she was directed to dilute it with one part of water. After the fourth day she ceased vomiting and hawking. This treatment was continued, however, for four months, when she was discharged cured.

Selected Articles.

PREVENTIVE MEDICINE IN PANAMA

BY SIR FREDERICK TREVES, BT., G.C.V.O., C.B., LL.D.

The Isthmus of Panama is at this moment the scene of an enterprise in sanitation of surprising magnitude, an enterprise which serves to display the forces of preventive medicine on a scale never before paralleled.

I visited the isthmus in February of last year and had the advantage of seeing this remarkable work under the guidance of Colonel Gorgas, the chief sanitary officer. To Colonel Gorgas is due the credit of an undertaking which in its aims and its results is not one whit less astonishing than the work of connecting by means of a canal the two great oceans of the world. Colonel Gorgas is clearing of disease one of the most pestilential spots in the tropics, and is making of the same a place where men can live in safety and in reasonable health. He is at the same time demonstrating practically the soundness and efficiency of the most recent claims of preventive medicine.

The isthmus is situated near to the Equator, the city of Panama standing in about the latitude of 9 degrees north. This part of the world, ever since its discovery by Columbus, has been more or less notorious for its unhealthiness. Enriques de Guzman, who came here in 1534, says that of every 100 men who went to Peru by way of the isthmus, eighty never returned. The mortality among the Spanish gold trains was known to be very high. Equally disastrous did the isthmus prove to the hordes of men who passed westward on their way to the goldfields of California. The number of laborers who died annually during the construction of the canal by the French company is not known, but the mortality was so high that on more than one occasion the work had almost to cease owing to the ravages of yellow fever. The deaths must have amounted to many thousands. So high was the death-rate among the laborers who constructed the Trans-

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Tennessee

Isthmian Railroad that it had been said—probably with some truth—that every sleeper beneath the lines represents a human life. This railroad was completed in 1855. The chief causes of the great mortality on the isthmus have been yellow fever, malaria and dysentery, with occasional outbreaks of smallpox. It may be called to mind that Sir Francis Drake contracted on the isthmus the dysentery of which he died, and that he lies buried just off the coast. It was on the isthmus also that his brother succumbed to yellow fever.

The isthmus, at its narrowest part, is about 33 miles in a direct line. The railway, which follows a winding course, covers $47\frac{1}{2}$ miles from Colon to Panama. Along the isthmus and parallel to its shores runs a ridge of hills, the ultimate offshoot of the Andes. This line of high ground is nearer to the Pacific than to the Carribbean Sea, the Culebra Pass, through which the canal has to make its way, being some ten miles from Panama. The rainfall on the Pacific side is from 50 in. to 150 in. The mean temperature of the district may be taken as 82 degrees Fahrenheit, the mean humidity as 88. The tide on the Pacific coast rises 14 ft., while on the Atlantic shore the rise is only 14 in. The country for the most part is covered by dense jungle, while the lowlands, especially on the northern side, are occupied by extensive swamps. The highlands present bare and open country with extensive tracts of prairie, grass downs and breezy slopes. The denseness of the forest tracts may be illustrated by the fact that Dampier when he crossed the isthmus in 1861, with Wafer, the surgeon, and forty-four pirates, only made on an average five miles a day. He attempted a wider part of the isthmus and followed a devious course, so that the traverse of 110 miles occupied twenty-three days. Major Ronald Ross, speaking of sanitation in Panama, says: "The country is one of the worst to deal with which I have ever seen."

The unhealthiness of the Panama area has been due, as has been already said, in the main to yellow fever and malaria. The actual mortality from these causes during the French occupation has never been published, but the fatality of these diseases can be to some extent gauged by the records of the British army in the adjacent West Indies. Sir John Moore's garrison on St. Lucia

amounted in June, 1796, to 4,000 men. By November the force had been reduced to 1,000 fit for duty and 1,500 sick. The campaign that lasted from 1793 to 1796 resulted, writes Fortescue, "in the total of 80,000 soldiers lost to the service, including 4,000 actually dead, the latter number exceeding the total losses of Wellington's army from death, discharges, desertions and all causes from the beginning to the end of the Peninsular War." The mortality was highest during the year 1794, when, of General Grey's original force of 7,000 men, no less than 5,000 perished during the course of the twelve months. It is probably beneath the mark, says Fortescue, that 12,000 Englishmen were buried in the West Indies during this single year. * * *

The Isthmian Canal Commission was created in May, 1904. The commissioners found on the canal area a condition of chaos: the plant neglected, the district overgrown by tropical vegetation, little, if any, attempt at sanitation, and inadequate accommodation for the men employed. They found 3,000 laborers—mostly Jamaican negroes—still engaged on the works, and two French doctors, one at Panama and the other at Culebra. The commission obtained from the Republic of Panama a grant in perpetuity of the land now known as the Canal Zone. This strip of land is ten miles wide—the line of the canal being in the center—and extends from sea to sea. Over the Canal Zone the United States have practically as complete control as if the territory were part of the home country, maintaining within its limits their own police and governing by their own laws. The grant included the group of islands in the Bay of Panama, but did not include the towns of Colon and Panama, although they are both on the canal strip. Colon, at the time of the occupation, had a population of 6,000 and Panama of 18,000. The position of these two towns, however, is defined in the following article: "The Republic of Panama agrees that the cities of Panama and Colon shall comply in perpetuity with the sanitary ordinances, whether of a preventive or curative character, prescribed by the United States, and in case the government of Panama is unable, or fails in its duty, to enforce this compliance of the cities of Panama and Colon with the sanitary ordinances of the United States, the Republic of Panama grants to the United States the right and

authority to enforce the same." A like authority is granted to the United States to maintain public order in the two cities, should the Republic not be able, in the judgment of the United States, to maintain such order. The United States, moreover obtained the power to drain these two cities, to provide them with a water supply, and to levy a water and sewage rate to defray the cost of the same.

It may be said that the sanitation of the two cities at the time of the creation of the commission was that of the middle ages. Water was obtained from rain-butts and shallow wells; there was no attempt at drainage, and the disposal of refuse was left to the individual householder.

The Commission realized immediately that if the canal was to be constructed, "thorough sanitation was the first essential." In every published report sanitary measures occupy the most prominent position. The medical officer of health was allowed absolute powers; he was assured (1905 report) that "the entire resources of the commission" were at his disposal, and funds were immediately forthcoming for all such undertakings as he considered necessary.

The views of the commission on this question are expressed in the following words: "The importance of completing the sanitation on the Isthmus of Panama can hardly be exaggerated, for upon it depends not only the construction of the Isthmian Canal, but also the utility of the canal when completed, and the question as to whether the canal is to be a blessing or an affliction upon the inhabitants of the earth." It was realized that unless yellow fever was stamped out the canal would become the means of carrying that disease eastwards, since the lifetime of the stegomyia has been shown to be about three months.

Sanitary works were among the very first undertaken by the commission, and Colonel Gorgas must allow that his department has received throughout the most liberal and sympathetic support of the Government.

In 1905 the number of men employed on the canal and railway was 19,500. In the sanitation section, nearly 2,000 men were exclusively engaged. The death rate for the year was 24.3 per thousand. The number of the constantly sick, 30 per thousand,

and the deaths from yellow fever, 47. In 1906, the deaths due to yellow fever fell to 7, and since that time the disease has disappeared. The mortality for the year 1906 was 17.5 per thousand among the whites and 53 per thousand among the blacks. In 1907 the number of employes was 29,446. The constantly sick were 29 per thousand. The death-rate among the white population had dropped to 15.9 per thousand and among the blacks to 45.3 per thousand.

The sanitary works commenced in 1904, and since then developed or completed, have been upon the following lines:

In the first place the housing of the employes was taken in hand. Excellent houses, barracks, boarding-houses and hotels were built along the canal tracks. The rooms are lofty, light and well ventilated, while all are screened with copper gauze. They are provided with modern sanitary conveniences, with a good water supply and with modern plumbing. Better dwellings for a tropical climate with a heavy rainfall could hardly be designed. The feeding of the laborers has been a matter of especial care and of exceptional difficulty, on account of the fact that the bulk of the supplies have to come from the States. Numerous public kitchens and restaurants have been established where excellent food can be obtained at a minimum cost. As the West Indian negro is apt to feed himself meanly in order to save money, his wages are paid partly in board, so the security is obtained that he is amply fed. Previous to this arrangement many of the men almost starved themselves, and became thereby reduced in efficiency and health. Ample holidays and rest days are instituted; reading rooms have been established along the zone, and clubs founded for every kind of recreation which is possible in a hot climate. A vessel is employed for free excursions to the island of Taboga, in the Bay of Panama, and every step is taken to keep the men upon whom the success of this great work depends in sound condition.

One of the earliest matters undertaken was the providing of accommodations for the sick. The hospital at Ancon was greatly enlarged, and other hospitals built where required along the Canal Zone. The hospital at Ancon is a model building of its kind, replete with every modern appliance, and, indeed, as well equipped

as any first-class European hospital. It is served by a specially selected staff, and in connection with the institution are ample laboratories for bacteriological and pathological work, for the chemical analysis of foods, and the like, and for general investigations in connection with the sanitation of the district. Looking back some ten years, it is scarcely to be believed that a body of engineers entrusted with the most stupendous construction of modern times should have recognized that among the *first* requirements to insure success was a bacteriological laboratory. Colonel Gorgas, the chief sanitary officer, had further to secure proper hospital accommodation for the sick poor of the two cities, for the lepers, and for the insane. Such lepers as were unable to work lived in wretched hovels on the beach, where they existed in much the same way as the land crab. The insane poor were allowed to roam over the land or were looked after by their friends. If they became violent they were placed in the stocks or were cast into the city prison. The commission has now provided both lazar houses and lunatic asylums. The hospital accommodation available on the canal area amounted in 1907 to 1,845 beds.

Then came the great undertaking of making reservoirs and of providing Panama and Colon with a good and constant water supply. As soon as this work was accomplished the numerous shallow wells were filled in, water-butts, tanks and cisterns were removed, or, if left, were carefully covered in. Thus, in the year 1906, 307 wells were filled in in Panama City alone, while in the two towns 23,031 tanks or water barrels were dealt with. There followed upon this the still more extensive work of draining both the cities and carrying out a modern scheme of sewage disposal, of connecting the individual houses with the sewers, of introducing water-closets, and filling in the innumerable cesspools. It is very noteworthy with what determination the commission insisted upon the carrying out of the sanitary orders they had imposed. For example, in 1906 the Canal Zone police made no less than 584 arrests for violation of sanitary regulations, while in 1907, 925 persons were arrested for the same offense. In the criminal statistics for the latter year it will be observed for purposes of comparison that the charge of "disorderly conduct" heads

the list with 1,176 arrests; then comes "violation of sanitary regulations" with 925; and in the third place "drunk and disorderly," with 787 arrests. Another great work undertaken by the commission was the paving of the public ways in the two cities, and the levelling and draining of the roads. The state of the streets in Colon and Panama in 1904 was no better and no worse than that to be found in any of the old cities on the Spanish Main or in the adjacent islands.

The most interesting work, however, undertaken by Colonel Gorgas and his staff was a crusade against the prevailing diseases on the isthmus. Of these the most important are yellow fever and malaria. Against yellow fever the inhabitants of the isthmus are immune, but they are not immune from malaria. Some 70 per cent. of the natives are the subjects of the latter disease, and it has proved most fatal. Taking the year 1907 as an example, the mortality lists on the Canal Zone present the following features: The total number of deaths was 3,822. The chief contribution to this number was made by pneumonia, which accounted for 716 deaths. The liability of the negro to pneumonia is well known, and the prominence of this disease throughout the West Indian islands is very striking. The fact that pneumonia heads the death-list in every year has no doubt suggested to the commission that a crusade against this malady is a pressing matter. No data is forthcoming to explain the prevalence of pneumonia in the islands. The negro spends practically the whole of his day out of doors in a warm atmosphere, which is subject to but little variation of temperature the year through. At night he retires to his tiny cabin, the windows and doors of which he literally seals up; and when the number of human beings who may occupy one of these cabins during the night is noted, it is astonishing that they do not die of mere suffocation. This habit of the negro of hermetically sealing his cabin at night appears to be due solely to his fear of jumbies or ghosts, which are very troublesome on the Caribbean coast, and can enter through the smallest chink.

On the isthmus the houses provided for the laborer afford the amplest cubic space per man and are perfectly ventilated. They are screened with copper gauze, the meshes of which are too

fine to admit even the slenderest jumbie. It is evident, therefore, that the home cabin of the negro cannot wholly explain his liability to pneumonia, since it follows him to the isthmus. The next disease in the mortality list is malaria, which in 1907 was answerable for 605 deaths. Then came the following in order: Tuberculosis of the lungs, 304 deaths; enteric fever, 150 deaths; Bright's disease, 137 deaths; diarrhea and enteritis (mostly among children), 136 deaths; dysentery, 118 deaths. In this year the number of deaths from smallpox was three. The liability of the negro to acute nephritis is well known and is shown by 48 deaths in 1907 and 64 in 1906 and 59 in the year following. This outline of the death-rate may be completed by adding that in 1907, 236 deaths were due to accident or violence, including eight suicides.

The plan of campaign against yellow fever is as follows: The houses are in the first place screened. This screening is very complete. In the better residences not only are all the windows and doors screened, but also the verandas. I have lived for a fortnight in a screened house and never saw a mosquito, but was bitten when out of doors. Mosquito nets are entirely dispensed with. Within the hotel at Panama I never saw a mosquito and no nets are used. The spring doors seem to be quite efficient. In the administration building guards are stationed at these doors to see that they are not propped open and that no one loiters in the doorway. In the fire buckets in this building larvæ are now never to be found. The *stegomyia* do not frequent the open country, nor do they breed in swamps or large bodies of water. They are "house dwellers" and require the protection of buildings, grass, foliage, etc. A system of house-to-house inspection was instituted to see that no mosquito larvæ were breeding; water-butts and tanks were destroyed or carefully covered over, while puddles in yards and elsewhere were oiled. Any subject of yellow fever was immediately isolated and "placed under a mosquito-bar." In order that no case, real or suspected, should pass unnoticed, eight medical men were appointed in Panama City "to act as medical inspectors and to make a daily house-to-house canvass of the city, reporting all suspected cases to the Health Department." The house from which any case of yellow fever has been moved is cleaned and fumigated. It is made as nearly

smoke-proof as possible, all cracks and openings are sealed with paper and paste, and each room is then fumigated with sulphur or pyrethrum. In from two to four hours the house is opened and thoroughly swept out, the sweepings being taken into the street and burned. Owing to the destructive action of sulphur, pyrethrum powder is in general use on the isthmus. As in the month of June, 1905, the number of cases of yellow fever had mounted to 62, the fumigation of the entire city of Panama was resolved upon. Since twelve days must elapse after the mosquito has bitten a fever patient before it can transmit the disease, it was desired to complete the work within that period. It occupied, however, 44 days. It is impossible not to admire the docility of the people of Panama, especially as they are themselves immune, and to note that even as late as 1907 no less than 59 of these citizens were fined for "having mosquito larvæ" on their premises. The average number of men employed in fumigating in Panama City alone was (in 1906) 110.

The crusade against malaria has been even more elaborate. Every new arrival on the isthmus is handed a printed circular explaining the cause of malaria and the means of its prevention, and advising the constant use of quinine in doses of at least 3 gr. a day. Quinine is placed on the table in the dining rooms and boarding camps, and large quantities of the drug are distributed broadcast. In the month of September, 1905, for example, 675,000 grs. were dispensed, mostly for prophylactic purposes. A large number of men are kept constantly employed in cutting down the dense tropical undergrowth, in mowing or burning the grass, in making and lining ditches, in filling in swamps and in oiling the surface of any pool or puddle in which mosquitoes might breed. Others are employed to inspect water tanks and barrels, to destroy such as can be dispensed with, and to screen such as are retained. As an example of the work of the anopheles brigade it may be noted that in 1906 in Colon alone the surface oiled amounted to 330,000 sq. ft. New ditches were cut to the extent of 200,000 lineal feet. Of these ditches 20,000 feet were stoned or cemented. Two million lineal feet of old ditches were cleared, graded, stoned or filled in. The area of brush and grass cleared amounted to 21,000,000 sq. yds. Never

has a crusade been carried out with such completeness, for never has a chief sanitary officer had so free a hand. It is needless to point out that the mere oiling of pools does not constitute the sole prophylactic measure against malaria. In a well-to-do town in the tropics it may be supposed that the land has been thoroughly drained and every suspected water area oiled, but there are still many varieties of vegetation which afford a breeding place for mosquitoes; as instances may be cited, pines and such a palm as the traveler's palm. We may be sure that the pine grower will not sacrifice his harvest in the public interest, nor will the wealthy resident allow the palms, which are the glory of his garden, to be cut down. It is much to be hoped that a list will be forthcoming of garden and other plants in which mosquitoes breed. On the Canal Zone no such list was needed. The place denounced was swept bare.

On one point of interest the reports of the commission are silent. They do not state upon what grounds the crusade against the land crab is based. It will be noticed in the last report that in the course of the year in Cristobal alone no less than 30,566 crab holes were oiled and 10,571 crabs were killed. I am not aware that the land crab has ever been seriously studied from a medical or sanitary point of view. That the animal is a remarkable and agile scavenger is allowed; that his habits are disgusting and his place of hiding unhygienic are more or less evident; but I have not met with any account which accuses this creature of the dissemination of disease. The matter is of some interest. On the Island of Barbados, for example, are to be seen more land crabs to the square yard than I have noticed in any other part of the world, yet Barbados is a remarkably healthy island, entirely free from yellow fever and but slightly troubled with malaria. The land crab has there no price upon his head, and, except for the damage he does to gardens, graveyards and roadsides, is not anathema.

Time will not permit of any account of the quarantine arrangements on the Canal Zone, nor of the very vigorous and successful manner in which an outbreak of bubonic plague was dealt with in 1905.

It will be seen, I hope, from the above brief description that

the isthmus of Panama provides at this moment an object-lesson which those who control the destinies of men might study with advantage. It provides for the realization of a long contemplated and heroic ideal—the medical officer of health with a free hand. —From Proceedings of the Royal Society of Medicine, re-printed in *Buffalo Medical and Surgical Journal*.

Abstracts.

A NEW DIETETIC AND INJECTION METHOD OF TREATING TYPHOID FEVER.

Under the above title Dr. F. J. W. Maguire, of Detroit, contributes an interesting article to the July (1908) issue of the *Michigan State Medical Society Journal*. He bases his conclusions upon private practice, and reports one hundred and thirty-eight consecutive cases, successfully treated in the last ten years. In part, he says: "I noticed when treating children with summer diarrhea that shortly after giving them nitrogenous food in the form of milk or beef tea, their temperature would always rise. I found that by giving these children a carbohydrate diet in the form of barley or rice water I rarely had a rise in temperature. With this observation in mind, and remembering the results found in my autopsies following typhoid, I came to the conclusion that milk as a diet in typhoid fever should be eliminated. To further strengthen this theory I determined to carefully watch the results following the use of carbohydrate diet in the form of rice or barley water, etc. In eighteen cases I found the temperature rise following the milk diet, while there was no perceptible increase in temperature after taking rice or barley water.

"I need scarcely add that as a food in typhoid fever I have never since used milk. It is my practice, when I first see a typhoid fever case, to give plenty of sterile water by mouth for five to ten days, or until the patient seems to require nourishment; then I use the peptonoids well diluted with sterile water, and the

various flavored ices and gelatines. I condemn cow's milk, as it is a culture medium and the cause of a great deal of local irritation."

With reference to treatment the doctor states: "Having eliminated the milk diet with its terrible irrigating effects in the already inflamed Peyer's patches, half the battle is won. This brings us to a consideration of the therapeutic aspect of this subject. In taking up the use of carbolic acid as the therapeutic agent in typhoid fever, I at first thought that I had discovered means whereby I could abort the disease. I commenced by giving half-dram doses of carbolic acid in a pint of sterile water as an enema. This I found very severe. The temperature would drop from 104 to subnormal and the patient showed signs of carbolic acid poisoning. The temperature would run from normal to 100 for a few hours, then resume its course. The kidneys were carefully watched in all these cases, as they are the filters by which the toxins are eliminated. In my next series of experiments I began with one drop of carbolic acid in a pint of sterile water given as an enema; if the temperature was not reduced I gave another enema in three hours with two drops, and so on increasing until I gave as high as ten drops or the tolerance of my patient allowed. My next series of experiments was with the drop method of injection. I mixed three to five drops of carbolic acid in a pint of sterile water, placed the solution in a fountain syringe alongside the bed and about a foot above the patient, and allowed about one hour for the solution to pass into the rectum. This was regulated by a gauge with a water-glass attachment, which shows how fast the water drops. Through the reverse mucous currents this solution is carried throughout the intestinal tracts and through this large area of absorption is carried to every tissue in the body."

In conclusion the author says: "I do not limit the use of carbolic acid injection to typhoid fever. I have met with phenomenal success with this mode of treatment in reducing temperature in pneumonia and gastritis, and have carried cases of acute appendicitis to a sub-acute or chronic form, thereby lessening the danger from infection at the time of operation. In these 138 cases reported here today the ages ranged from three to

seventy-eight years. I gave no cold baths, but applied ice bags over abdomen, and one bath a day for cleanliness. Occasionally I gave a little strychnine, quinine and salol as indicated. Since adopting this dietetic and carbolic injection method of treating typhoid fever, I have treated 138 consecutive cases. This covers a period of about ten years. All these cases responded readily to treatment, notwithstanding the fact that many were advanced before treatment was begun. Four cases had had most profuse hemorrhages, all of which subsided when the milk diet was removed. I believe by these experiments I have made some very valuable therapeutic and dietetic discoveries, and have sufficient confidence in my treatment that I am compiling a work on the subject."

THE INFLUENCE OF UROTOPIN ON THE URINE.

Interesting findings are reported by Professor Richard Stern in the *Zeitschrift f. Hygiene u. Infektionskrankh.*, Vol. 39, 1908. With urotropin a liberation of formaldehyd or antiseptically-acting formaldehyd compounds best takes place in acid urine. A urotropin urine with alkaline reaction is less antiseptic. By "alkaline" urines Stern means urines to which sodium bicarbonate has been added. There is, therefore, no contradiction between his experimental results and the clinical observation that urotropin acts well when the urinary reaction is alkaline. For a clinically alkaline urine means one which has undergone ammoniacal decomposition—one which is acid in the kidneys and is only in the bladder infected with uric acid-decomposing bacteria. For the practical employment of urotropin it is important not to weaken its action by simultaneous free administration of alkalies.

Though free flushing of the urinary organs is rightly regarded as an important therapeutic measure, it involves diluting the antiseptic in the urine. Therefore, when the loss of urotropin can not be proportionately increased, the patient should be ordered to drink large amounts of liquids throughout the day, while larger doses of urotropin are given morning and evening.

Deep-seated inflammatory processes of the bladder, renal pel-

vis, etc., are less amenable to urinary antiseptics. In tuberculosis and other deeply-penetrating infectious processes, a cure can not be attained with urotropin. The remedy is, however, of service by restraining bacterial development in the urine and alleviating the irritating action on the diseased mucosæ.

Stern thinks urotropin is by no means used enough before and after instrumental procedures on the urinary organs. Urotropin in large doses uniformly distributed (60 grains a day in 3 to 6 doses) should be given in all cases in which obstructed urination favors infection, before and after the introduction of instruments (catheters, cystoscopes), and before and after gynecological or surgical procedures in which injury or contusion of the bladder may occur.

Stern recommends a large dose late at night, to render the nocturnal urine antiseptic. Otherwise much of the success attained during the day is negated during the night.

In phosphaturia, says Stern, urotropin acts when the excretion of urine turbid with earthy phosphates is due to ammoniacal fermentation. His cases of this class were mostly of preceding gonorrhea in which secondary staphylococcus infection occurred. In neurasthenics, who often suffer from hyperacidity and constipation and therefore freely take alkaline waters and vegetable acid salts, the food alone may suffice to produce an alimentary phosphaturia. Here urotropin is unavailing. But when the urine of such patients is weakly acid or natural, a moderate formation of ammonia or uric acid-decomposing organisms suffices to induce precipitation of earthy phosphates. A stronger urinary infection can of course also lead to phosphaturia, even if the food is not responsible. In such cases the phosphaturia is rapidly obviated by urotropin in medium-sized doses. Usually the urotropin must be given continuously because generally only an inhibition of uric acid decomposing organisms is effected.

Stern considers it erroneous to speak of "the" dose. It varies in accordance with the resistance of the disease producers and other factors in each individual case. Often when 7 1-2 grains urotropin thrice daily proved unavailing, the number of bacteria rapidly decreased when the dose was doubled or trebled.

MEDINAL: A READILY SOLUBLE HYPNOTIC OF
THE VERONAL GROUP.

Dr. Ernst Steinitz (Prof. Klemperer's Division of the Moabit City Hospital in Berlin), in *Therapie der Gegenwart*, July, 1908. says:

"The ideal hypnotic must be readily soluble and, therefore, rapidly absorbed, so that the soporific effect may be prompt and certain and that there may be no undesired prolongation of it. Diethyl-barbituric acid, one of the best hypnotics known, has the disadvantage of very slight solubility (1:145).

"Steinitz experimented clinically with the monosodium salt of diethyl-barbituric acid, or medinal, placed at his disposal by Schering. It is a crystalline powder 20 per cent. soluble in water; by heating a 30 per cent. solution, permanent in the cold, can be prepared. He used it by mouth, per rectum, and subcutaneously.

"By mouth the salt is always given dissolved in water, when it has no unpleasant taste. Its action was quicker and more certain than that of diethyl-barbituric acid; occasionally the salt had good effect where the base had been ineffective. A cumulative toxic action was absent, though in some cases 7 1-2 grains were given daily for considerable periods.

"In most cases the superiority of the new salt is doubtless due to its being administered thoroughly dissolved. It is best taken on an empty and consequently acid-free stomach—on retiring—when it passes unchanged into the intestines and is there quickly absorbed. In the ratio in which absorption and therefore excretion are hastened, the salt naturally diminishes the danger of cumulative toxic actions.

"Per rectum the action of the drug was quicker and almost always more intensive. In some cases the effect was excellent when the same dose by mouth had no effect at all. Anesthetic properties were also observed at times. In several cases of cardiac and bronchial asthma, with night attacks, the greatest possible relief was effected by the rectal injections. Seven and one-half grains were dissolved in about a dram of water, and injected with a small rectal syringe.

"Subcutaneous injections are intensive rather than rapid in ef-

fect; 75 minims of a 10 per cent. solution are used; this hardly irritates and is apparently more quickly absorbed than more concentrated solutions. Abscesses never occurred, though some patients were morphinists who in other places were sown with injection abscesses. In threatened delirium tremens the salt has about replaced chloral by subcutaneous injection. The injection of the salt seemed especially suitable, too, for patients under antimorphine treatment; here its quietening effects were marked."

Steinitz concludes:

"On account of its extreme water solubility, the salt can be conveniently administered in a well-dissolved and most finely subdivided state. The absorption proceeds more quickly when it is administered on an acid-free stomach and when given per rectum, because the drug remains in its readily soluble form.

Rectal administration can be recommended when the stomach is to be spared and especially for obstinate insomnias.

Subcutaneous injection we recommend at present only in special cases, where the patients refuse oral medication, for morphine habit; and as a last resort in severest insomnia."

Records, Recollections and Reminiscences.

MEDICAL EXPEDIENTS DURING THE WAR BETWEEN THE STATES.

BY C. J. EDWARDS, M.D., OF ABBEVILLE, LA.

Owing to the blockade of Southern ports by the Federal vessels the supply of medicine in the Confederacy became scarce in the early years of the war, and as that stupendous struggle between the States progressed, the difficulty of procuring drugs became a serious problem both for the armies in the field and the people at home. This scarcity of medical supplies called into play the highest ingenuity of a people who were largely cut off from the world and left to their own resources.

In treating of the many expedients employed in relieving suffering humanity at the South during the war, I shall refer only to a few of the many which served that purpose. We shall not include therein the old tale of the soldier of constipated habit, who carried in his pocket an efficient cathartic in the shape of an ounce musket ball, which, when swallowed, acted mechanically, nor that of the regimental surgeon who, upon finding no contharidal cerate in his armamentarium, promptly fell back upon the expedient of applying hot cloths dipped in boiling water to the chests of his soldier patients suffering from pneumonia, and produced the desired amount of vesication.

Quinia sulphate was perhaps the drug most sought after during the war, standing second only to opium and its preparations. Decoctions of the leaves and bark of the black willow, and the button willow, were used to cut short malarial fevers. The favorite method of employment was a strong decoction, or this reduced by boiling to a syrupy substance, which was incorporated into a pill. The bark of the dogwood was also largely used as an antiperiodic. While the use and knowledge of the virtue of eupatorium perfoliatum, or boneset, were so universal as to make it a household remedy, it deserves more than a passing mention.

These were the days before Lister had proclaimed the doctrine of sepsis in the healing of wounds, and the necessity of employing antiseptics. Inflammation and laudable pus were then thought to be essential in the healing of wounds. Empirically, it was learned throughout the South that turpentine applied to wounds, fresh or suppurating, hastened the process of repair, and that charred cotton lint was an unrivaled dressing for ulcers and foul wounds.

Many and daring were the attempts of the distressed Confederates to obtain medicines during the war. In 1863, when Grant was besieging Vicksburg and his gunboats patrolling the Mississippi had cut the Confederacy in twain, my father was detailed from Wright's Arkansas Cavalry, an independent command, to procure some quinine, calomel, and opium. He crossed the Mississippi river at Greenville, Miss., and proceeded with a horse and buggy to Canton, where he obtained the supplies. He made the return trip safely to the Mississippi river, only to find a gun-

boat in close proximity and no means of traversing the mighty stream, then bankful. After considerable search he found an old disused pirogue or "dug-out," with the front end partly knocked out. It was almost useless, but by loading only in the rear end he found the front would ride high enough to clear the water. He accordingly waited until night, when, under the convenient cover of darkness, he carefully loaded his frail craft with the precious burden, and stripping off, he swam the river in safety to the opposite side, pushing the dug-out in front, and keeping it properly trimmed.

There were a number of attempts made to procure opium from the poppy heads, and their unripe seed capsules when incised exuded a dark, gummy substance, which was not unlike crude Turkish opium in its effects. Decoctions of Stramonium leaves and May pop root were employed for the relief of pain, particularly as local applications.

One purpose which the war served was to call attention to the wealth of medicinal agents and remedies in our own fields, forests and plains. An enumeration of them all would prove tedious and consume too much valuable time, so I shall content myself by enumerating a few of those in most common use. The well known *gelsemium sempervirens* or yellow jasmine is a powerful remedy for controlling the nervous symptoms in fevers, and regulating cardiac action in sthenic diseases. *Stillingia*, or queen's root, is another valuable drug much employed and in high repute in all diseases showing a blood dyscrasia. The inner bark of the common alder was an unrivaled ingredient in the making of salves for the healing of ulcers and wounds. Flaxseed meal was a rarity and its place in the making of poultices was supplied by fresh slippery elm bark, the root and leaves of the mauva plant, and the leaves of the common cactus, which, when shorn of its spines, and well-pounded or macerated, formed a very cooling emolient.

PHYSICIANS, ATTENTION.—Drugstores and drugstore positions anywhere desired in United States, Canada, or Mexico.—F. V. Kniest, Omaha, Neb.

Editorial.

DR. S. G. BONNEY ON TUBERCULOSIS.

Dr. S. G. Bonney, of Denver, Col., a widely known physician of St. Luke's Hospital, the Oaks Home and the head of Gross Medical College, who was invited to address the Nashville Academy of Medicine, spoke to a large and appreciative audience in the ball room of the Watauga Club on Saturday night, October 16, upon "Tuberculosis."

Dr. Bonney treated many phases of the great question, but each was necessarily a brief exposition in view of the vastness of the subject and the limited time. He expressed his pleasure in being allowed to address the Academy. He said that he would deal in clinical and practical rather than scientific facts and the methods of management of places for curing the disease. He called attention to the existing conditions in Colorado and the difficulty in handling the cases there owing to their advanced stage, stating that the delay between the diagnosis and period of reaching Colorado averaged nineteen months.

Among other things the speaker referred to sanatoria as ordinarily conducted and expressed opposition to the custom of admitting patients only on certificates. He brought out the fact that only patients who are comparatively mildly affected are admitted. These, he said, are of no particular menace to society, while those who are refused admission daily spread the disease. Some place, he said, should be provided as a refuge for incurables. He also said that about seventy per cent. of the cases in Colorado were at a very advanced stage, and the poverty of the patients was amazing. He gave several examples of the poverty of the ones stricken and also praised the beneficence of many rich people who had contributed to the consumption fund.

Dr. Bonney spoke at length of the effect of the nervous and mental strain upon the patient, and also of the enormous influence wielded by environment upon the mental attitude of consumptives.

A point brought out was the necessity for a careful diagnosis and immediate treatment. In this connection he spoke strongly of the difference in patients and showed that one case should not be treated exactly as another. Each case should be treated as its individual requirements suggest. The food, clothing, diet, climate, management, etc., were discussed at some length. Some patients were shown to need absolute rest, while others could work with due regard to their physical condition. The patient's condition rather than the disease itself, he said, should be treated.

"The personality of the physician in impressing upon the patient his own share in the cure," said Dr. Bonney, "is an important factor. The

great influence which other members of the family exert upon the patient's condition and the harm possible to be done by peculiarities or idiosyncrasies is almost incalculable."

Dr. Bonney gave as the principal elements of treatment good food, outdoor living and rest, as the disease was produced by bacilli. He dwelt at length upon the importance of diet, stating that in proper diet lay the nucleus fund of strength and vitality. He deplored the divergence of physicians concerning diet, believing that no standard of diet could be dictated. It must rather be chosen by the physician according to the need of the patient.

"Physicians," said Dr. Bonney, "were once supporters and advocates of the theory of overstuffing the patient, but now the desire of medical authorities is to preserve and augment the vitality of the patient by a proper diet."

Dr. Bonney dwelt upon the subject of rest and exercise, giving examples of the harm done by "superfluous application of the latter."

"I do not believe," said Dr. Bonney, "in pulmonary gymnastics in high altitudes except in exceptional cases." He said outdoor living by day and night was imperative, and mentioned residence outside of a city as preferable.

Dr. Bonney in speaking of sanatoria stated that the chief benefit to be derived from them was from the constant attendance of a physician. "It is my conservative opinion that sanatoria per se are not necessary for the rational management of tuberculosis," said Dr. Bonney.

The speaker took up the subject of the drug treatment, giving examples both of the harmful and good results derived from the application of drugs in his experience. On being asked for his opinion on the Tuberculin treatment, he replied that he would not use it unless he deemed it absolutely necessary. The speaker also gave some examples of cases in which he had used the anti-streptococcic serum with beneficial results.

In closing Dr. Bonney expressed his thanks for the courtesy extended him by the Academy of Medicine and other members of the medical profession in the city, and thanked the audience for its kind attention. After the address photographs were exhibited by Dr. Bonney showing the various stages of tuberculosis patients affected with the malady and the methods of treatment.

HOW TO MAKE GOOD BUTTERMILK AT HOME.

You can make the best buttermilk any day in your own kitchen. And there is nothing better for digestive disorders, and especially for intestinal troubles, or as a substitute in infant feeding, in certain cases.

You can get at any drug store Lactone tablets, containing the lactic acid bacterium culture that will convert sweet milk into full cream butter-

milk by simply dropping a tablet into a quart bottle of milk and maintaining the proper temperature, according to the instructions. Not only because this full cream buttermilk contains the fat in emulsified form is it better than the buttermilk you buy of the buttermilk man, but because the lactic acid bacterium prevents the development of injurious bacteria in the milk. This is important in the case of infants. Cholera infantum, some forms of diarrhoea and perhaps typhoid can be avoided in this way. Here is the most important practical application of the germ theory yet made, a boon for infant humanity, a recovery in some degree of the loss due to departing from nature in infant feeding as a result of departing from nature in other ways.

Prof. Metchnikoff discovered that the Bohemians have a greater percentage of centenarians than any other people, and the Bohemians drink more buttermilk than any other people.

It has long been known that buttermilk is a valuable food medicine—even when soured by lightning. We cannot always command the thunder, but science has discovered how to make buttermilk without a churn and without lightning and without separating the butter. Butterless buttermilk is good, full-cream buttermilk is better in most cases.

Cow's milk is digested by the infant with difficulty, often resulting in complete breakdown of the digestive and nervous system; but the adult digestive system is not so well adapted to the digestion of milk, and hence flatulence and absolute revulsion often result from its continued use. But buttermilk causes no such difficulties, because it is in a sense largely predigested, the coarser curds of the casein in cow's milk being finely broken up.

This removes the greatest objection to cow's milk as a diet for infants and as an ideal monodiet for adults in severe stomach and bowel troubles.

A certain amount of fat is necessary to the best conditions for normal nutrition, and fat is about two and one-half times more valuable as a heat and energy producer than other forms of carbon; and of the fats, butter is the most easily assimilated, except peanut and olive oil. But emulsified as the fat is in milk, it is much more easily assimilated than as butter. For this reason, and for others, the new way of making buttermilk gives a much more nutritious product and more digestible, especially for the infant.

Cow's milk cannot be made identical with the infant's natural food, but it can be approximated to it. The chief difficulty to be overcome is to adapt the large curds that tend to remain in the stomach longer than they should, as the development of the calf's stomach requires that its food shall have a much heavier curd than that required by the infant in which intestinal digestion is more important. The use of buttermilk tablets obviates this difficulty, besides overcoming other objections to the use of cow's milk. But the objection naturally arises that soured milk is not

natural. The reply is that cow's milk is not natural. Certainly tests of buttermilk have proved it very satisfactory.

Lactone Tablets yield a buttermilk that possesses the full nutritive value of sweet milk; a buttermilk of most delicious flavor; a refreshing beverage; an excellent food-medicine for infants, invalids and convalescents.

ASSURED THERAPEUTIC RESULTS.—Assured therapeutic results can only follow the administration of active remedies. Extemporaneously prepared preparations, in lieu of time tried and clinically proven products, especially where dependence must be placed upon crude drugs of uncertain strength due to improper selection or deterioration from age, has resulted in dissatisfaction to the physician and disappointment to the patient, who has a just right to expect benefits as a result of the remedy prescribed.

For twenty-six years Hayden's Viburnum Compound has remained standard both as to quantity and quality of its component parts, as well as to the uniformly satisfactory results following its administration.

Hayden's Viburnum Compound is prepared with that care, both as to the selection of drugs and in the proper combining, to make it a perfect and dependable product which is impossible where a substitute formula is extemporaneously prepared from the stock and with the limited facilities of the average drug store.

If, in the next case of dysmenorrhea, you will at least give Hayden's Viburnum Compound a trial, administering it a few days prior and during the menstrual period, we are confident that your patient will experience the same beneficial result as has been the case during the many years Hayden's Viburnum Compound has been before the profession.

In amenorrhea, menorrhagia and metrorrhagia, Hayden's Viburnum Compound has proven of unquestionable value and as its reputation has been built up and maintained solely upon its merits as a reliable remedy in the treatment of diseases of women, we are confident that if you will use it in your next case, you will be as well satisfied, as have been those who have for years placed their dependence upon it. Owing to the popularity of Hayden's Viburnum Compound and its large sale, it is extensively imitated by other manufacturers. To assure satisfactory beneficial results, the original H. V. C. should only be administered. Samples and literature will be sent you upon request made to New York Pharmaceutical Co., Bedford Springs, Bedford, Mass.

THE NEUTRALIZATION OF DYSCRASIA.—In a very excellent article on "Various Forms of Headache," which appeared in *Medical Progress* a short time ago, Dr. J. U. Ray, of Blocton, Ala., states that, "We must not only be particular to give a remedy intended to counteract the cause which produces headache, but we must also give an anodyne which will

relieve the pain until the constitutional dyscrasia to which this trouble is due, has been neutralized. To answer this purpose, two antikamnia tablets will be found a safe and convenient remedy. Usually they relieve the pain within twenty minutes. When we have a patient subject to sick headaches, we should caution him to keep his bowels regular, and when he feels the first premonition of an attack, he should take two antikamnia tablets. Most all patients tell us they know by certain symptoms when an attack is about to come. To these patients we can do nothing better than give them antikamnia tablets, to be carried around with them always ready for use. They are prompt in action, and can be depended upon to produce the most soothing anodyne action. In this country and also in England, these tablets are largely employed, with results that have caused them to be depended upon by the best observers in both countries. The remedy, having none of the drawbacks common to other agents of this class, it is eminently fitted to be applied in the treatment of the cases just described."

TONICS AND THE CLIMACTERIC.—A good many physicians realize the value of effective tonic medication during that rather variable period in a woman's life known as the climacteric. The tendency to the psychoneuroses, when such a patient's general vitality is low, emphasizes the necessity of bringing the nutrition and general health to as nearly normal point as possible. As a usual thing to the extent that this can be accomplished, to that extent the recognized dangers can be averted. Extensive clinical experience has proven beyond controversy that no remedy has a broader field of utility as a general reconstructive and restorative than Gray's Glycerine Tonic Comp. Under its administration the digestion improves, absorption and assimilation are increased, and proper elimination promoted. The nervous system is rapidly toned and helped to recover its balance. Thus its resistance to dangerous influences is promptly raised, and the woman undergoing the "change of life" instead of drifting into a condition of permanent invalidism, and becoming a confirmed neurotic, is able, through a re-establishment of her vigor and strength, to look on her symptoms as simply incidental to a physiological process. Greater reliance, therefore, on the tonic influence of Gray's Glycerine Tonic Comp. and less resort to bromides and opiates, has saved many a woman from neurotic maladies that are worse in many respects than death itself.

ETHICAL ELEGANCE.—To obtain an antiseptic and germicide the equal of bichloride and carbolic without their dangerous features, has been a great study with the friends as well as the foes of these two corrosive agents. Dr. Tyree believes the problem is solved by the clinical and scientific tests made with Tyree's Antiseptic Powder. These tests, with the opinions of gentlemen eminently qualified to pass upon the therapeutic

value of any chemical agent, are embodied in an interesting little booklet, which will be sent free. While Tyree's Powder has hitherto been largely confined to obstetrical and gynecological work, careful experiments in the hospitals of this country and London, indicate its equal value in general, rectal, laryngeal and oral surgery, whether of operative or mechanical application. Should you feel sufficiently interested, the doctor will, upon request, mail a sample of this great antiseptic. In this connection he assures the profession that this is not done with a view of securing names for publication. This is never done, as his antiseptic is strictly an ethical one. His sole object is to acquaint the profession personally with the great value of this remedy. For samples and descriptive literature, write Dr. J. S. Tyree, Chemist, Washington, D. C.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

THE FALL SEASON BRINGS COOL WEATHER and raw winds. This condition checks elimination through the skin. More work is thrown upon the kidneys. It is not always that they are equal to the extra task imposed. Imperfect elimination is the result. The autotoxic state which soon develops is expressed in either so-called gouty bronchitis, with or without asthma, gouty eczema, recurrent tonsillitis, or rheumatism. To establish adequate elimination is to remove the cause and thus effect a rational cure. The ideal eliminant in such cases is Alkalithia, made by the Keasbey & Mattison Co., Ambler, Pa.

WE CALL THE ATTENTION OF OUR READERS to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

MATERNITY.—The "Rigid Os" so often met with in obstetrical cases is most effectively relieved and much suffering avoided by the administration of Hayden's Viburnum Compound. No less an authority than Dr. Sims used and recommended this standard product.

Reviews and Book Notices.

GENITO-URINARY DISEASES AND SYPHILIS. By Edgar G. Ballenger, M.D., Lecturer on Genito-Urinary Diseases, Syphilis and Urinalysis, Atlanta School of Medicine; Editor Journal-Record of Medicine; Genito-Urinary Surgeon to Presbyterian Hospital, Atlanta, Ga. With 86 illustrations; 8 vo. cloth; 276 pages. Price \$3, carrying charges prepaid. E. W. Allen & Co., Publishers, Atlanta, Ga.

We can cordially commend this very excellent work from a Southern author. "The writer's aim," he states in his preface, "has been to present fundamental principles, and to enter at the same time into sufficient detail when considering matter of prime importance. He has not been entirely content to state generally accepted views, but has also set down the result of a somewhat close study of recent literature, wherein it has seemed to accord with his own experience and that of recognized authorities. The book will be alike of value to the general practitioner and medical student.

PATHOGENIC MICRO-ORGANISMS, INCLUDING BACTERIA AND PROTOZOA. A Practical Manual for Students, Physicians, and Health Officers. By William H. Park, M.D., Professor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. New (third) edition, thoroughly revised and much enlarged. Octavo, 648 pages, with 176 illustrations and 5 full-page plates. Cloth, \$3.75, net. Lea & Febiger, Philadelphia and New York. 1908.

Dr. Park was the first to give concrete recognition in book-form to the fact that diseases caused by animal organisms are almost as important to the human race as those resulting from low forms of vegetable life. It is true that the pathogenic bacteria, representing the vegetable kingdom, are more numerous

than the disease-bearing protozoa, or animalcules, and it is also true that the latter are more difficult to cultivate and demonstrate, but no reason can justify ignoring them. Professor Park, perceiving this deficiency, supplied it in the most effective manner by preparing chapters on the protozoa and placing them with others on bacteria in a single volume, where they could be studied together, both in similarity and contrast. His work was thus the first to cover all diseases caused by micro-organisms. The need for it and the acceptable way it supplies that need may be seen in the demand for three editions. In a subject of such intense activity, growth is very great, and accordingly the changes in this new edition are extremely thoroughgoing. Like its predecessors, it is intended to answer the needs of the student and physicians to cover the whole subject of pathogenic micro-organisms from both standpoints.

A MANUAL OF DISEASES OF THE NOSE AND THROAT. By Cornelius G. Coakley, M.D., Clinical Professor of Laryngology in the University and Bellevue Hospital Medical College, New York. New (fourth) edition. 12mo., 604 pages, with 126 engravings, and 7 colored plates. Cloth, \$2.75, net. Lea & Febiger, Publishers, Philadelphia and New York. 1908.

The profession, including teachers of laryngology, are evidently clear as to the merits of "Coakley," for three large editions have been absorbed, and the demand instead of being sated is more vigorous than ever. To achieve such popularity in a crowded field betokens command of the whole of a subject, as well as judgment as to what to include, what to omit, and how to present all that is essential. As a laryngologist and teacher, Professor Coakley possesses both the practical and didactic knowledge. He takes his reader from the beginning and carries him through to end of the subject, framing the book so that it will serve the man who has not had the advantage of personal clinical instruction, and therefore meeting the needs of all others as well. He is especially clear and full in the practical sections, namely those on examination, diagnosis and treatment. He has selected the medicinal and operative measures which in his experience are best and has given them in full detail. A special chap-

ter on Therapeutics contains the drugs classified by their local actions and a number of useful prescriptions with indications for their employment.

Selections.

SUGAR AS A DISINFECTANT.—In many parts of Europe it is customary among the people to burn sugar in sick rooms, a practice which is considered by physicians as an innocent superstition, neither beneficial nor harmful. Prof. Trilbert, of the Pasteur Institute at Paris, has, however, demonstrated recently that burning sugar develops formic acetylene-hydrogen, one of the most powerful antiseptic gases known. Five grammes of sugar (77.16 grains) were burned under a glass bell holding 10 quarts. After the vapor had cooled bacilli of typhus, tuberculosis, cholera, small-pox, etc., were placed in the bell in open glass tubes and within half an hour all the microbes were dead. If sugar is burnt in a closed vessel containing putrified meat or the contents of rotten eggs, the offensive odor disappears at once. The popular faith in the disinfecting qualities of burnt sugar appears, therefore, as well founded.—*Scientific American*.

RELIEF OF RETENTION OF URINE BY SUPRAPUBIC CATHETER.—The physician occasionally finds a patient suffering from complete retention of urine, which cannot be relieved through the natural channel, usually because of false passages that have been made in endeavors to pass a tight stricture or hypertrophied prostate. When satisfied by a patient trial that his efforts to pass a catheter through the urethra must be futile, the physician must make an artificial exit for the urine. How shall this be done with the least detriment to the patient?

Our text-books advise (1) supra-pubic aspiration, repeated if necessary; if the patient still fails to void urine naturally, (2) a cutting operation, perineal or suprapubic.

The objection to repeated aspirations which honeycomb the suprapubic tissue, is sufficiently obvious; and the difficulties and

dangers of perineal urethrotomy without a guide, are well known to all who have performed it.

For many years I have done neither, but have employed a measure which is as little dangerous to the patient and as easy for the physician as is aspiration, and yet solves the problem completely. I have never seen this simple procedure described in our text-books; yet it is probable that others have used and described a device that so easily relieves the patient from the distress and danger, and the physician from the perplexities of a serious situation.

This patient whom I now present is one of many illustrations of the value of this measure. Seven days ago he sought my aid for relief from the agonies of complete retention of urine that had existed thirty-six hours. The cause was a tight stricture of the bulbous urethra; and false passages already made defeated a patient effort to enter the bladder.

Without anesthesia a trocar and canula No. 14, French scale, was passed into the bladder in the median line about an inch above the symphysis; the trocar being withdrawn a soft catheter No. 8 French was passed through the canula far enough to carry its end to the bottom of the bladder. The canula was then withdrawn, leaving the catheter in its place. The catheter was attached to the skin by adhesive plaster; and after the urine had escaped the free end of the catheter was tied in a knot to prevent dribbling. The patient, who was allowed to be out of bed, was instructed to untie the knot every five to six hours, void urine through the catheter, and then retie the knot. Urotropin was given internally.

For five days no attempt was made to pass the stricture, although during the last two of these days some urine trickled out of the meatus when the patient urinated through the catheter. During these five days the false passages in the urethra were healing, and the edema of the bladder-neck and prostate was subsiding. Two days ago a cautious attempt to pass a Banks' bougie was successful, and the stricture was immediately dilated to 21 French. As the urethra was now open, the suprapubic catheter was withdrawn, and its track left to heal spontaneously. The patient states that since the withdrawal of the catheter no urine has escaped through the puncture, which, as you see, is scabbed

over and dry. It always heals when the obstructions in the natural channel are removed.

Sometimes one fails to enter the bladder through the urethra after four or five days rest; in this case the suprapubic catheter may be left in position two or three days longer. Should the urethra still be found impassable (which, in my experience, has never happened), a cutting operation may then be considered, the patient being in far better condition to stand it because of the week's rest of the bladder. Should still further delay be considered best, the catheter should be removed, cleansed of the adherent urinary salts, and reinserted; the track into the bladder will remain patulous for a short time.

Should the obstruction be an enlarged prostate, and prostatectomy be considered unwise, the patient may wear the suprapubic catheter for an indefinite time, withdrawing it every day or two for cleansing. Patients easily learn to remove and reinsert the catheter through the fistula; one elderly patient of mine wore the catheter in this way for six years. Another, who had a cancer of the prostate that prevented urination, secured entire freedom from urinary troubles during the last nine months of his life through this device.

Other conditions in which the suprapubic catheter is useful are sometimes met, such as severe prostatic suppuration.

In case the physician decides to make perineal section for an impassable stricture, a small curved trocar and canula can be passed into the bladder above the symphysis, and a filiform passed through the canula into the deep urethra as a guide; indeed one is sometimes fortunate enough to pass the filiform through the stricture from behind, when it cannot be made to pass from in front.—W. T. Belfield, M.D., of Chicago, in *Medical Fortnightly*.

KIPLING'S OPINION OF DOCTORS.—From the "London Letter," in the *N. Y. Med. Record* of Oct. 24, ult., we extract the following:

"Mr. Rudyard Kipling distributed the prizes at the Middlesex Hospital and delighted his audience with a characteristic speech. He remarked that it might have escaped their professional observation that there were only two classes of mankind—doctors

and patients. He had felt a delicacy in confessing he belonged to the latter ever since a doctor told him that all patients were great liars where their own symptoms were concerned. The average patient might regard the doctor as the noncombatant does the troops who fought for him. He had to address the army which is always fighting against death. It was unfortunate that death was bound to win in the long run. This fight is one of the most important things in the world, and you who carry it on, he said, must be among the most important people. The world certainly insists on this. It long ago decided you have no leisure that any one need respect. Nothing but extreme illness can excuse you in its eyes for refusing help to anyone who thinks he needs you at any hour of the day or night. Nobody will care whether you are in your bed or in your bath—at church or a theater. What vitality you have accumulated in your leisure will be dragged out of you again. In time of plague, pestilence, fire, battle, famine, murder, and sudden death it is required of you to go on your duty at once and stay till your strength fails or your conscience relieves you, whichever be the longer period. These are some of your obligations and not likely to grow lighter. Have you heard of an eight-hour bill for doctors? Do you know of any change in public opinion that will allow you to refuse to attend a patient who does not mean to pay? Have you heard any outcry against people who can well afford to pay but prefer to cadge around a free hospital and get advice, glass eyes, and cork legs for nothing? I have not. It is required of you to save others at all moments. It is nowhere laid down that you must save yourselves.

"You have been and always will be exposed to the contempt of the gifted amateur, the gent who knows by intuition everything that has cost you years of study. You have also been and always will be exposed to the attacks of those persons who consider their own undisciplined emotions more important than the world's most bitter agonies—the people who would hamper and limit and cripple research because they fear that it may be accompanied by a little pain and suffering. Such people have been against you from the beginning, ever since the earliest Egyptians erected images in honor of cats and dogs on the banks of the Nile. But

your work will go on. You remain perhaps the only class that dares tell the world that no man can get more out of a machine than he puts into it, and that if the fathers have eaten forbidden fruit the children's teeth will be set on edge. In a day when few things are called by their right names you are joining a profession in which it pays to tell the truth. Realizing these things, I need not task your patience by talking about the high ideals and lofty ethics of that profession—so I will wish you enough work to do and strength to do the work.”

NEW, SIMPLE, AND READY METHOD OF DROPPING ETHER FROM THE ORIGINAL CAN.—Joseph E. Lumbard, of New York, suggests a simple method of using ether by the drop method, without any elaborate apparatus, directly from the original can. The tin covering the neck is carefully cut around two-thirds of the way and turned back so as not to break. A thin wick of absorbent cotton is placed in the angle between the neck and the flap, so that it is held in place while the flap is folded down. By tilting the can the ether may be made to flow along this wick in drops. The advantages are availability, simplicity, and cleanliness.—*Medical Record*, Oct. 24, 1908.

INTERPRETATION OF BLOOD EXAMINATIONS.—Ira S. Wile, of New York, says that we should not depend on blood examinations alone for a diagnosis, but must consider with them the whole clinical picture of any given case. All the leucocytes may be grouped under one head. Myelocytes are distinctly granular. The relative variations of the lymphocytes are contrasted with the percentage variations of the polynuclear neutrophilic leucocytes. This contrast possesses immense practical diagnostic and prognostic value. Much stress should be placed upon familiarity with the normal variations in percentages of lymphocytes and polynuclear neutrophils. The significance of myelocytes in children is far less than in adults. The percentage of polynuclear neutrophils is the relative index of intensity of infection. The total leucocyte count is an index of individual reaction to infection. No diagnosis, except of parasites, should be based upon a single blood examination.—*Medical Record*, Oct. 24, 1908.

THE USE OF IPECACUANHA IN HEPATITIS. Murray writes in the *Indian Medical Gazette* for April, 1908, on this topic, and reports some cases which show very strikingly the value of ipecacuanha in the treatment of that form of hepatitis which follows upon dysentery—cases which we know so frequently drift on to the formation of liver abscess.

So marked were the symptoms and signs in some instances which the author quotes that he thinks any one would have been justified in exploring the liver for abscess, and yet the condition entirely cleared up under ipecacuanha and no other treatment. In one instance the liver was explored in five places with negative result, and on ipecacuanha being given again the inflammation completely subsided. These cases of hepatitis are often characterized by a very insidious onset; fever is usually present, and one frequently obtains the history that the patient has been treated for some time with quinine without any beneficial results. In the great majority of instances a history of recent dysentery or diarrhea can be obtained, and in one case the patient was actually under treatment for dysentery when acute hepatitis developed. As an aid to diagnosis, first, the author mentions the leucocyte count, which has been so thoroughly worked out by Major Rogers. It is of great value, especially in very indefinite cases, a leucocytosis of varying degrees being usually present, and one in which the polynuclear cells remain at or near their normal percentage. Secondly, the X-rays. The absence of any definite shadow in the liver substance excludes in the great majority of cases the presence of an abscess, although the diaphragm on the right side may be seen to be firmly fixed, while it moves freely with respiration on the left.

So firmly does the author believe in ipecacuanha for such cases that he expects to find in time that if more of them are thoroughly treated with this drug in the stage of acute hepatitis the formation of the hepatic abscess will be prevented. It must be clearly understood that only cases in the presuppurative stage are referred to, as the writer does not for one moment mean to imply that once an abscess has formed ipecacuanha will be of any use whatever.

He has records of cases treated in hospital for hepatitis following dysentery without ipecacuanha discharged apparently cured, but only to return at a later date with an abscess actually present. So far he has not been able to trace the same result in a case thoroughly treated with ipecacuanha in the early stage. It is true that only recently have cases of post-dysenteric hepatitis been treated thoroughly with this drug, so it is early yet to dogmatize, but the author thinks it will be obvious to any one that a great advance will have been made in tropical medicine if by any means we can diminish the number of liver abscess cases; and should this prophecy come true, we shall undoubtedly owe a very large debt to Major Rogers for the valuable work he has done and is doing on this subject.

FEEDING OF TYPHOID PATIENTS.—There are two points of clinical importance which should influence the physician in the selection of proper diet for typhoid fever. They are, first, the supposed danger of mechanically irritating the ulcerated surface in the intestine and the danger in overloading the gastro-intestinal tract whose digestive functions are impaired by the fever. Second, the relations of the chemical ingredients of the food to the increased tissue change that causes, or accompanies, the excessive production of heat. If the proper fluid can be furnished as a food the tissues are spared too great self-consumption in producing heat.

In regard to the first fact, the danger of mechanical irritation of the intestinal wall is somewhat exaggerated. In prescribing sole milk diet for typhoid fever in order to lessen this danger, many overlook the fact that milk, alone, on entering the stomach becomes almost solid, and large, firm curds are likely to prove quite as irritating to the ulcerating surfaces, or even more so, than starchy food. When patients are fond of milk and seem to digest and absorb it thoroughly, there is no better diet when employed with bovinine. It answers every requirement of a perfect fever food. It contains all the essential elements of nutrition, is readily digested, furnishes fluid to the tissues, is a good diarrhetic, and if properly administered it is soothing to the

stomach when a gastric catarrh exists. Those who dislike milk or do not seem to digest it, do well on bovine in barley, rice or plain water and later when the digestive condition has improved milk may again be taken up. It is largely the custom with the profession to give an exclusive diet, but this should not be prescribed in routine for all cases. Many authorities have advocated a departure from the strict milk diet which has come to be the rule for typhoid fever, and it is found beneficial to enlarge the dietary of some patients considerably, and this can be most perfectly obtained by the addition of bovine. It is usually the case in hospitals to put typhoid patients on a routine milk diet, but of late it has been proved that far better results were obtained where the bovine was given in combination. In typhoid fever every effort should be made to maintain complete and normal stomach digestion. If all food is thoroughly disintegrated before it enters the digestive tract, there need be little fear of mechanically irritating the ulcerated surface. Far more danger may occur through malnutrition of the intestinal wall, which prevents absorption of nutriment. An accumulation of undigested food in the intestine is, therefore, highly undesirable, and where bovine is employed an examination of the stools will show no undigested curds or food matter. Milk for some persons, in health or disease, is clearly a poison. They completely fail to digest it, and it produces a gastro-intestinal disturbance which, in many cases is quite serious. Patients of this class digest milk even less when they acquire a prolonged fever. Others with whom milk agrees, become very tired of it after taking it exclusively for a long period. This complication does not occur when the bovine is employed, and the convalescent period is undoubtedly shortened.—*Medical Herald*.

JAUNDICE: A DIFFERENTIATION.—Arnsperger says in obstruction of the common duct by gall stones the jaundice appears suddenly with an attack of pain and the patient appears very ill, often in a septic condition. The urine contains no urobilin but much bilirubin.

In cases of *occlusion* of the common duct by malignant growth

the jaundice and cachexia gradually appear. The liver is enlarged, the gall-bladder is palpable and ascites is present. The stools are clay colored and there is secondary anemia with a tendency to hemorrhage.

In *parenchymatous* affections the jaundice gradually develops without colic and may show remissions lasting over a long period. The gall bladder is not palpable but the liver and spleen are enlarged. The urine contains urobilin but not bilirubin. The stools are unchanged and the anemia may be severe.—*International Clinics*.

THE OPERATIVE TREATMENT OF PERFORATING GASTRIC ULCER. —Von Khautz, Jr. (*Archiv fur klinische Chirurgie*, Band 85, Heft 3) reports in detail eleven cases of perforation of gastric ulcer, which he has observed in the last four years, all but two of which he has himself operated upon. The history was, as a rule, characteristic of perforating gastric ulcer—sudden, extremely severe pain; vomiting; in most cases preceded by a considerable period of stomach trouble. In three cases in which the history was not characteristic, and the pain was worse in the lower right side of the abdomen, the trouble was at first thought to be appendicitis. Of the 11 cases, 4 were women and 7 men. As to age, 3 patients were under fifty, two of whom died; 3 between fifty and sixty, two of whom died; 4 between sixty and seventy, three of whom died; and one over seventy, who died. Most of them were, on account of age and condition, bad risks for operation. Less than half the patients were operated upon in the first twelve hours, and the remainder in eighteen hours to two days. The cause of death was in five cases diffuse suppurative peritonitis, and in three cases lobar pneumonia.

Of the objective symptoms, the chief weight was attached to the reflex rigidity of the abdomen, and the marked tenderness to pressure, especially in the umbilical region. The general appearance of the patients was that of severe illness; in all except three cases of nephritis the pulse was weak, but in the nephritis cases it was strong, out of proportion to the severity of the disease. Obliteration of liver dullness occurred in only three cases; the

temperature was uniformly 37 deg., with variation of a tenth of a degree either way.

Operation was always done under general anesthesia, through a median incision, except in cases mistakenly supposed to have an appendiceal origin. In caring for the ulcer, gauze packing was used in one fatal case, as the perforation was in the posterior part of the duodenal end of the stomach, and on account of adhesions could not be found; in three cases, all of which died, the ulcer was excised and the opening closed by pyloroplasty; direct suture was done in six cases, four of which died and two recovered. The high mortality, 73 per cent, was due largely to the fact that the practicing physicians instead of sending the cases at once to the surgeon depended upon morphine, which only masked the symptoms.—*Therapeutic Gazette*.

DIAGNOSIS AND TREATMENT OF CANCER OF THE BREAST.—Some very valuable suggestions were given by Sir William W. Cheyne, in a paper presented to the British Medical Association. These may be conveniently summarized as follows: 1. Be gentle in examination owing to the risk of spreading cancer cells along the blood-vessels or lymphatics. 2. Inspect both breasts, as this shows any existing difference in the level of both nipples, the nipple of the affected side being higher up, owing to shrinkage of the growth. This sign, if present, is almost pathognomonic. 3. Determine the existence of diminished motility of the skin over the tumor or its adhesion to underlying parts. 4. In cases of small tumors note the ill-defined character of the edge of the mass. 5. To differentiate cancer from cyst, note that the latter is movable and the former fixed. The age is also of importance, since if the woman be over forty years, there is a strong possibility of malignancy. Operation for removal of the growth should be as thorough as possible, with due attention to avoiding dissemination of cancer cells and to functional results. Whatever cutaneous incision be selected, it must not at any place approach within two inches of the area of involved skin, while the fascia must be even more extensively removed. Some parts of the pectoralis major always require excision, but this does not apply



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